

## Watering of young in *Pterocles alchata*

by S. MARCHANT

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In a recent notice Marchant (*Bull. B.O.C.*, Vol. 81, pp. 134-141, 1961) described aspects of breeding in the sandgrouse *Pterocles alchata* and *P. senegallus* and in particular gave an account of what was presumed to be the watering of the young by the male parent in *P. senegallus*. During 1961 further opportunities were taken of observing these birds on their breeding grounds, about 20 km. nearer Baghdad than the area in which the observations were made in 1960.

On three occasions behaviour very similar to that already described for *P. senegallus* was seen with *P. alchata*. Briefly, this was as follows:—

**21st July.** 0615 hrs. Discovered a pair with two young which were later estimated to be about ten days old. Watched till 0720 when both adults flew away and young squatted. At 0806 ♀ returned: young got up and joined her without any abnormal behaviour. At 0813-14 ♂ returned and settled 5 m. from young: as he did so, ♀ flew away a short distance and young immediately ran to ♂. For about two minutes they remained with him, evidently thrusting their heads into his belly and flank feathers, which he seemed to spread and fluff out, though my view was partly obscured by thin, low vegetation. At 0816 both young walked away from ♂ and joined ♀. I immediately drove up from 150 m. where I had been watching, but as I got out of the car, the young flew off down wind for 50-100 m. When I caught one, it had no signs of dampness on its head. Perhaps it was not likely that there would be, even though only one to two minutes at most could have elapsed between the time that the young left the ♂ and I had caught one of them.

**28th July.** 0700 hrs. Discovered three adults (1 ♂, 2 ♀♀) with three young which were about three quarters grown and well able to fly. It was not clear which adults owned the young and matters were further confused by other single adults coming and going, but by 0720 one ♀ was left with the young and she left at 0722, leaving the young together and motionless. At 0731 two ♂♂ landed near the young and all three at once ran up to one male. He stood erect and the young nestled around and below him, with heads inwards, like a litter of suckling puppies. At one moment I could clearly see, from about 150 m., one young with its head against the male's legs and thighs. They separated at 0734, and wandered about feeding till the ♀ joined them at 0805.

**4th August.** 0615 hrs. Picked up a pair with three well-grown young of the same size as those watched on 28th July. Followed across desert for 1,500 metres till they joined a large flock of mixed adults and juveniles. The flock flew away at 0757 leaving the family behind, with a few other scattered individuals. The ♂ parent disappeared unseen about this time. At 0804 the young squatted and the accompanying ♀ ran on and also disappeared. At 0824 a pair flew close over the young, calling loudly. The young immediately rose and then settled with the adult pair 50 m. further away on a bare desert road, when two of them at once ran up and nestled under the male, the third waiting alone indifferently for a few moments and then joining in. This "litter of puppies" behaviour lasted for about one

minute and then was broken up, all the birds walking off across the desert and feeding.

These observations seem to confirm beyond doubt the method by which these sandgrouse bring water to their young. I may add, however, that on 18th August, from 0800 to 1135 I watched a pair of *P. senegallus* with two young, no more than a week old and unable to fly. While I watched, the adults never left the young which surprised me because I had expected to see "watering" behaviour during this period. Presumably, then, if "watering" is performed daily, its time is more irregular than one would have imagined.

### Remarks on the taxonomy of *Turdus nigrilorum* Reichenow and *Turdus saturatus* (Cabanis) in Southern British Cameroons

by WILLIAM SERLE

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*Turdus nigrilorum* was described by Reichenow (*Ber. Allgem. deutsch. orn. Ges. Marz* 1892), the type locality being Buea on the Cameroon Mountain at an altitude of 950 metres (about 3,100 feet). Reichenow compared his new form with *Turdus chiguancoides* Seebohm, and in his original description he mentioned the grey-brown flanks and the fulvous-brown axillaries of *nigrilorum*.

For a number of years opinion has been divided over the status of *T. nigrilorum*, some treating it as a full species and others treating it as conspecific with the wide ranging *Turdus libonyanus* (Smith) of which the representative in the area surrounding the Cameroon Mountain is *T. l. saturatus* (Cabanis).\*

The type locality of *saturatus* is Duala, on the Cameroons coast and only twenty-five miles from the base of the Cameroon Mountain. The type specimen of *saturatus* is an extremely worn bird. The flanks are washed orange-chestnut and the axillaries and under wing-coverts are clear orange-chestnut.

In the hope of determining the relationship of *nigrilorum* and *saturatus* I collected a series of the two forms on the Cameroon Mountain and on the plain between the base of the mountain and the sea, at altitudes from sea level up to 9,500 ft. Comparing the two forms, in fresh adult plumage, in *nigrilorum* the upper parts are a shade darker as are the lores, and the middle of the throat and breast a shade greyer and less brown, but these are trifling differences. The only good character lies in the flanks, the axillaries and under wing-coverts. The orange-chestnut wash on the flanks of *saturatus* is absent in *nigrilorum* and the axillaries and under wing-coverts instead of being clear orange-chestnut are only tinged with orange-chestnut, and the outer under wing-coverts are hardly even so tinged.

On the character of the flanks, axillaries, and under wing-coverts the thrush of the upper slopes of the Cameroon Mountain is clearly *T. nigrilorum*, the thrush of the lowest slopes of the mountain and the adjacent coastal plain is *T. saturatus* and there is a fairly narrow altitudinal zone on the lower slopes of the mountain occupied by intermediates between *nigrilorum* and *saturatus*.

In the series collected by me the following are assigned to *T. nigrilorum*.